

# Health on Wheels

## MOBILE HEALTH MONITORING ENSURES TCEQ'S INVESTIGATORS STAY HEALTHY, ON THE JOB



The Texas Commission on Environmental Quality's environmental investigators are

its frontline workers and face numerous types of potential hazards.

On a typical day, they may come across such risks as exposure to raw sewage or noxious chemicals or, even more likely, mundane or subtle ones, such as walking over uneven ground or up steep slopes, or enduring the unforgiving and unrelenting sun and heat of a Texas summer.

"Employees are told not to risk themselves if they feel unsafe," says Ramiro Garcia, deputy director for the TCEQ's Office of Compliance and Enforcement.

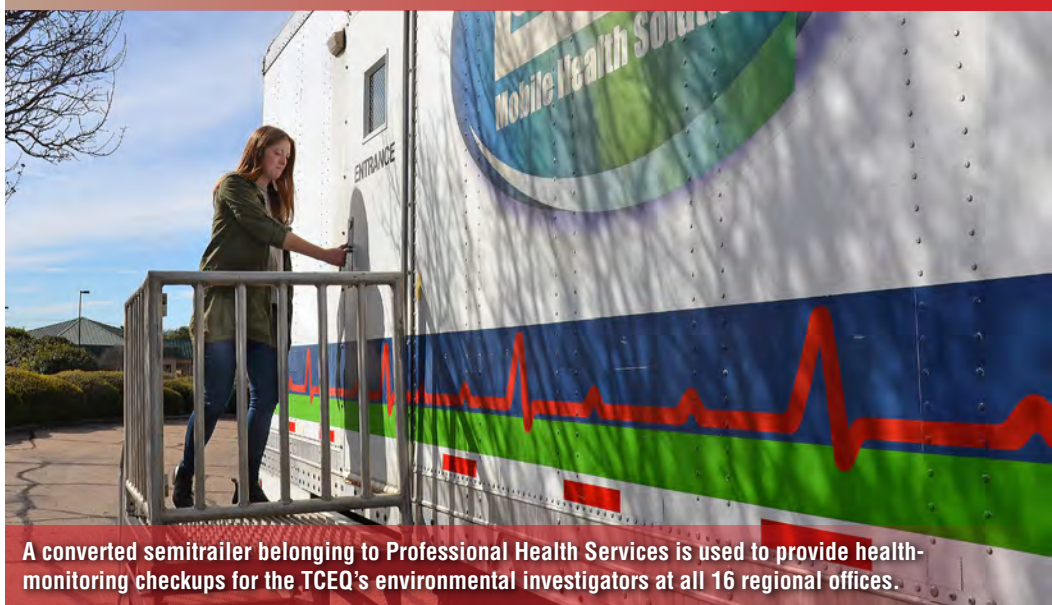
While the agency's investigators receive OSHA training to help them identify unnecessary risks, they also undergo a yearly comprehensive physical checkup to ensure that they have not inadvertently exposed themselves to harmful chemicals, air contaminants, or noise while on the job.

### The Health Exam

Once every year, a nurse practitioner travels the state to all 16 regional offices of the



**Dr. Thomas Mackey, a nurse practitioner and faculty member at the University of Texas Health Science Center's School of Nursing, has organized the mobile health-monitoring program for the TCEQ for the last 23 years. For 19 of those years, he has gone to where the TCEQ's environmental investigators work, instead of the other way around.**



**A converted semitrailer belonging to Professional Health Services is used to provide health-monitoring checkups for the TCEQ's environmental investigators at all 16 regional offices.**

TCEQ to check the health of the agency's field staff to make sure that they can keep doing their important work helping to protect the health of Texans and their environment.

Depending on the size of a particular regional office, it can take anywhere from a day to a week to check all of its investigators. The mobile unit can handle between 20 to 25 exams per day.

The health-monitoring checkup includes an occupational health history assessment; a physical examination; hearing and eye tests; thorough blood-chemistry analysis for both typical health indicators and foreign substances, such as lead; an EKG; a chest exam; and other tests.

The checkups are handled by the University of Texas Health Services, which is part of the University of Texas Health



Science Center at Houston. They contract with Professional Health Services, out of Philadelphia, to provide the mobile health-monitoring unit (a specially converted semitrailer) and a team of technicians to assist.

Dr. Thomas Mackey, a nurse practitioner and faculty member at the UTHSC School of Nursing, has organized the mobile health-monitoring program for the TCEQ for the last 23 years. Mackey consults with various medical specialists, including cardiologists and pulmonologists, to help evaluate some of the tests, such as chest X-rays and cardiograms.

Mackey says it is also important to make sure that investigators' shots are up-to-date, most especially to protect against life-threatening exposures they may encounter on the job, such as to tetanus (found in soil and manure), hepatitis A (found in raw sewage), and hepatitis B (found in blood and other bodily fluids).

Despite the obvious health hazards that investigators navigate during the course of their work, the most common issues that Mackey sees are typical of the greater population. These include issues related to obesity: type II diabetes, heart



**Sara Stafford, Waco wastewater investigator, has her hearing tested.**

disease, high blood pressure, sleep apnea, and elevated blood cholesterol.

"I can't tell you the number of personal-health problems I have found over the years," Mackey says. "So many people do not avail themselves of their primary health providers. For some of these people, I am the only health-care provider they see."

The most dramatic case he has witnessed during a medical checkup was when he noticed that an investigator was having heart troubles. He referred him

to a cardiologist. The next day, the investigator was in the hospital for open-heart surgery.

The most common types of injuries incurred on the job are muscular-skeletal in nature, such as back and knee sprains—many of which are related to poor body mechanics in the work environment.

When Mackey does follow-up consultations with the investigators, he includes a report that shows five years' worth of trending data, if it is available.

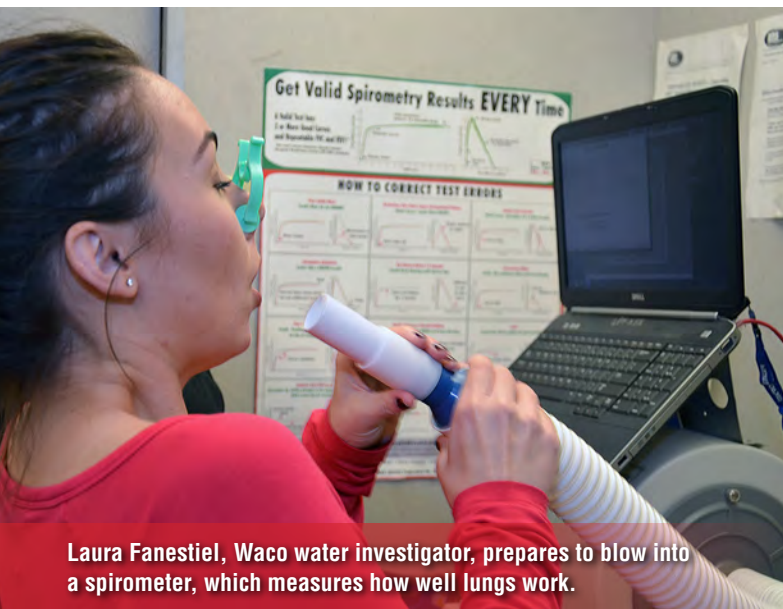
He also advises the TCEQ when special accommodations should be made for an investigator, such as limiting certain physical activities or exposures during late-term pregnancy.

## **Saving Time and Money**

Mackey says that 23 years ago the TCEQ switched from a medical provider in San Antonio to the UTHSC in Houston.

When investigators had to travel to either San Antonio or Houston to get their annual medical checkups, they incurred substantial expenses for the state: travel (rental car and gasoline, or plane tickets), food, and lodging. Plus, the time they spent on the road and in hotels was time they were not spending fulfilling their primary duties as environmental investigators.

TCEQ staff asked Mackey to evaluate whether it would be more worthwhile for him to go to where the investigators worked rather than the other way around. It was.



**Laura Fanestiel, Waco water investigator, prepares to blow into a spirometer, which measures how well lungs work.**

Mackey has been traveling to all of the TCEQ's regional offices for about 19 years. Eight years ago, he ran the numbers and estimated that the mobile medical clinic had thus far saved the TCEQ about \$12 million, not including costs related to lost work time. He believes that by now the agency's savings are likely closer to \$20 million.



**Dr. Thomas Mackey, who runs the mobile health monitoring clinic for the TCEQ, examines Fanestiel.**

"This is really awesome. We don't have to do any traveling," says Laura Fanestiel, a water investigator and local coordinator for the mobile testing in the TCEQ's regional Waco office.

She notes that it takes her about 45 minutes to complete the process through the various medical stations, and then she can get back to work.

It is not just about the convenience and not missing time on the job.

"It gives us the assurance that if we do get exposed to something, it will be caught," Fanestiel says.

While Waco wastewater investigator Sara Stafford believes she has a stronger immune system thanks to the exposures on the job, she also feels reassured that the TCEQ is providing her with a thorough medical checkup each year.

"It is comforting to get it done and know that I am not getting exposed to any toxins or pathogens or anything like that," she says.



**Liana Williams, a lab technician with Professional Health Services, measures Stafford's blood pressure.**

Another testament to the quality of the program Mackey runs comes via some former environmental investigators, who have been promoted to management positions. They say that one of the things they miss most about their old job is their annual medical checkup. 📍



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